On the on-line journal “*Biophysics and Physicobiology (BPPB)*”

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Published online: 7 March 2020

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Abstract

This Commentary describes the history and current status of the international journal run by the Biophysical Society of Japan known as *Biophysics and Physicobiology (BPPB)*.

The journal *Biophysics and Physicobiology* (abbreviated to *BPPB*: http://www.biophys.jp/biophysics_and_physicobiology.html; for the banner of *BPPB*, see Fig. 1) was originally launched as *BIOPHYSICS* in 2005, with the goal of “making it a place for presenting unique research results from Japan” and “distributing biophysics activities in Asia and Oceania.” *BPPB*’s philosophy is stated in the “About the Journal” on *BPPB*’s website as follows:

“*Biophysics and Physicobiology (BPPB)* is the official on-line journal of the Biophysical Society of Japan (BSJ). Biophysics has long been developed in a field of physics using physical methods and theories to study the structures and functions of biological systems. Biophysics now spans all scales of biological organization, from the molecular scale to whole organisms and ecosystems, and hence biophysical research demonstrates significant overlaps with biochemistry, physiology, cell biology, nanotechnology, bioengineering, computational biology, systems biology, theoretical biology and so forth. The current activity of biophysics has evidently grown over the first idea in “biophysics”, the term originally introduced in the 19th century. BSJ would like to cover the current trend and the future direction of this field with a term “physicobiology”. Biological systems are bounded by the physical principles and laws, but at the same time the systems apparently exploit these principles and laws, reaching a compromise among them. Technology in biophysics has grown to the level of single molecule and omics analyses that can approach to clarify this detail balance in biology and physics. Physicobiology is going to be driven by de novo researches that clarify how physical factors, such as force, heat,

electromagnetic field, stochasticity and so forth that completely obey the physical principles and laws, play a significant role in the biological systems. BSJ believes that the next direction of the biophysics is this physicobiology and would like to lead the direction by transforming the journal to *Biophysics and Physicobiology*.”

We have published several Special Issues, such as “Progress of theoretical and computational biophysics - in honor of Professor Nobuhiro Go’s outstanding contribution on the occasion of his 80th birthday,” which consists of 31 papers (December 2019: see Fig. 2), “Databases” (April 2018), “Memorial for Professor Nobuhiko Saitō” (November 2016), “Protein-ligand interactions” (July 2016), and “TRP channels: their functional roles in medical sciences” (February 2015).

Since its inception, *BPPB* journal has no booklet form—it exists solely as the on-line journal. On top of this *BPPB* is also completely open access. Therefore, there are no restrictions on the length of the manuscript or the number of figures. The use of color diagrams is also free of charge. As stated in the submission rules (http://www.biophys.jp/biophysics_and_physicobiology03.html), the submission and publication costs are rolled into one basic page charge fee. For a 10-page paper, the total cost will be approximately ¥100,000 (about \$1000). If the journal was a monthly or bimonthly publication, it would be necessary to collect a certain number of papers in 1 or 2 months to make a complete issue. We therefore abandoned the concept of Issues, and all accepted papers for the year are published within a single volume. Papers are uploaded in the order of their acceptance with no minimum or maximum limit to the number of papers published in one volume.

Since its foundation in 1960, BSJ has published a bimonthly journal, “*Seibutsu Butsuri (Biophysics in Japanese)*,” contributing to the development of biophysics in Japan. However, from the very beginning, we have been trying to have an

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Fig. 1 Banner of the journal *BPPB*

English-language journal. As one of the achievements, we published a series of books, “*Advances in Biophysics*,” almost every year from 1970 to 2004. These books were published by the first generation of BSJ, including Profs. Masao Kotani, Setsuro Ebashi, Fumio Oosawa, Akiyoshi Wada, Ei Teramoto, Haruhiko Noda, and Koscak Maruyama. They have been published for more than 30 years, but their roles have been gradually reduced, and finally, they were discontinued in 2004. Under such circumstances, there was a growing momentum to publish a new English-language journal as an official journal of BSJ. As a result, when Prof. Toshio Yanagida was the president of BSJ, a preparatory committee for the publication of journals was established, and specific proposals were considered. Then, *BIOPHYSICS*, a predecessor of *BPPB*, was launched in 2005. I was also a member of that committee, and I happened to be the president of BSJ at that time.

BIOPHYSICS was first published in 2005 with Prof. Toshio Yanagida as the Editor-in-Chief. From the third year, Prof. Michiki Kasai became the Editor-in-Chief, and from 2009, I took over until the end of 2019. From 2020, Prof. Haruki Nakamura has been appointed as the new Editor-in-Chief. The *BPPB* journal intends to re-vitalize biophysical research, which was previously biased toward the USA and Europe, as

a third pole in the Asia-Oceania region. Therefore, we have founded the board of Associate Editors by gathering researchers from the members of Asian Biophysics Association (ABA) including Australia, China, Korea, Taiwan, Hong Kong, and India. Many of the members were former presidents of the Biophysical Society of each region. Recently, a researcher from Singapore has also joined as an Associate Editor. During this time, committee members have been changing, but even now, biophysics researchers in Asia and Oceania keep the positions of Associate Editors, sharing the Editorial Board with Japanese members.

The editorial system consists of one editorial chair, three vice chairs, and about ten editorial members. The editorial committee belongs to the publishing committee of the BSJ and discusses general publishing policy with the editorial committee of the Japanese journal “*Seibutsu Butsuri (Biophysics)*.” About 10 years ago, the Japan Society for the Promotion of Science (JSPS) created the KAKENHI fund to support the Open Access Journals. The BSJ applied for this grant and was accepted. *BPPB* has been receiving financial assistance from JSPS since then. For this reason, papers submitted and accepted from the Asia-Oceania region are being subsidized with the recommendation of representatives from each country. In addition, the number of Advisory Board members has increased.

As an activity of the editorial committee, we registered the journal in PubMed Central, and have made preparations to acquire an impact factor (IF), and registered with Clarivate Analytics (Japan) Co. Ltd. in 2018. As a result, it was listed on the Web of Science by being registered in the ESCI (Emerging Sources Citation Index). In 2019, it was approved by the DOAJ (Directory of Open Access Journals) as an Open Access Journal, and it has reached the stage of preparing its appearance as an international journal.

In applying for an IF, the journal name *BIOPHYSICS* was found to be the same as the English translation of *Biofizika* in Russia, so we decided that it was better to change the name, and we considered a lot of candidates for the new name of the journal. A long discussion in 2015 turned out to decide the new name as *Biophysics and Physicobiology (BPPB)*. With the banner of Biophysics raised, we clarified our initial aims of broadening our understanding of life phenomena. Until then, *BIOPHYSICS* had been published up to Volume 14, so it was changed to *BPPB* in the middle of 2015. The first volume was numbered 15, so that it could smoothly follow on from the numbering system used for its predecessor journal, *BIOPHYSICS*, up to that point.

Biophysics and Physicobiology

Special issue
*Progress of theoretical and
computational biophysics*

<https://www.jstage.jst.go.jp/browse/biophysics/>

Fig. 2 Current cover of the journal *BPPB*

The BSJ established two awards for published papers: “Award for outstanding *BPPB* paper,” which is selected every year by the members of the BSJ selection committee out of the papers published in the last 6 years. The first paper was awarded in 2012 (Furusawa et al., 2005) (see *BPPB* Award (2019) for a complete list of award-winning papers and authors since then), and “*BPPB* editors’ choice award,” which is selected by a vote of Editorial Board members from a number of papers published last year and nominated by the Editor-in-Charge (two papers were first awarded in 2014; see also (*BPPB* Award, 2019)).

In the future, under the leadership of the new Editorial Committee, I hope that *BPPB* will grow into a biophysical journal truly based in the Asia-Oceania region. I would like to cultivate the *BPPB* journal as a place for publication of characteristic research results that spread not only in Japan

but also in the Asia-Oceania region and eventually over the world. To do so, the cooperation of biophysical researchers from other countries, mainly in the Asia-Oceania region, is indispensable, and I recommend the *BPPB* journal for a place to publish your unique and interesting research results.

References

- Furusawa C, Suzuki T, Kashiwagi A, Yomo T, Kaneko K (2005) Ubiquity of log-normal distributions in intra-cellular reaction dynamics. *Biophysics* 1:25–31
- BPPB* Award (2019) <http://www.biophys.jp/paperaward.html>

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